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Case Report

Self-Mutilation of Tongue and Lip in a Patient with Simple Schizophrenia

Maria Cristina Munerato, PhD; Sabrina Pozatti Moure, MSc Buccal Pathology;
Vivian Machado, Resident Doctor; and Fernando Grilo Gomes, MSc Psychiatry

Self-inflicted lesions that cause mutilation are observed in schizophrenic patients. This case report describes the diagnosis and treatment of simple schizophrenia in a 31-year-old male patient who bit his own tongue and lower lip. The dental treatment proposed included the construction of a splint to prevent new lesions and to allow healing of existing ones. The treatment afforded to avoid tooth extraction before the patient responded to psychiatric drug treatment. The importance of a transdisciplinary approach to self-mutilation due to psychiatric disorders is stressed. The interaction between the two teams, stomatology and psychiatry, was crucial for the improvement of the patient's condition.

Keywords: Conservative dental treatment; Self-mutilation; Simple schizophrenia

Corresponding Author:
Dra. Maria Cristina Munerato
Faculdade de Odontologia – UFRGS
Rua Ramiro Barcelos, 2492
Departamento de Odontologia
Conservadora (DOC)
Porto Alegre, RS. Brazil. 90035-003
Tel: +55 51 33165005
Fax: +55 51 33598248
Email: mcmunerato@gmail.com

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Self-mutilation is a behavior commonly observed in patients with some psychiatric disorders, such as borderline personality disorder, depression, and schizophrenia. These patients inflict lesions to their own bodies, although with no intent to commit suicide. Self-mutilation events described in schizophrenic patients include castration, enucleation of the eye, amputation of hands, and skin lesions. These individuals state that they hear voices telling them to get rid of parts of their bodies.[1,2] Dworkin[3] also suggests that self-mutilation in schizophrenic patients is related to a lower pain threshold.

The obsessive-compulsive behavior associated with schizophrenia has been frequently reported in the literature. Some authors have suggested that this behavior is manifested by a specific category of the population of schizophrenic patients, and the term schizo-obsessive disorder has been employed to describe and refer to these patients. In this scenario, more studies are necessary to establish whether (a) the obsessive symptoms are associated with psychosis, (b) these symptoms occur only in the prodromal phase of schizophrenia, (c) these symptoms are induced by neuroleptic drugs or the case is obsessive-compulsive disorder (OCD) as such, and (d) OCD occurs concomitantly with schizophrenia.[4-6]

The present study presents the clinical case of a schizophrenic patient who self-inflicted lesions in his tongue and lower lip by constant biting, though with no hallucinations. A splint designed to prevent biting until the patient responded to the drug protocol proposed to prevent tooth extraction is also described.

Case Report

A 31-year-old male patient was admitted to the psychiatric ward of the Hospital de Clínicas de Porto Alegre (HCPA), Porto Alegre, RS, Brazil, to be examined and treated for a psychiatric disorder associated with self-mutilation. Schizoid personality disorder and epilepsy had been previously diagnosed. The stomatology team was summoned to assess and follow-up the self-inflicted lesions in the oral cavity.

During the first dental evaluation conducted in the psychiatry ward, the patient answered the questions presented laconically, without keeping spontaneous conversation, and slow movements. He did not complain of physical pain. He said he could not control himself or avoid self-inflicting new lesions, and that he felt some "relief" whenever he bit himself.

Upon physical examination of the oral cavity, laceration and maceration of the anterior third of the tongue were observed, indicating that it might have been continually bitten (figure 1). Hemorrhage had been stopped, which suggested that the wound had not reached larger blood vessels. The patient kept a piece of bandage in his mouth to refrain from biting his tongue. His tooth surfaces were also observed to be excessively worn, a finding compatible with eccentric bruxism. The patient reported having used a myorelaxant splint to treat bruxism 15 years before. During examination it was also detected that the patient performed long-spanned and involuntary jaw movements. Tardive dyskinesia was ruled out as the etiological basis of these movements.

During the first phase of the patient's hospitalization, the following drugs were prescribed: valproic acid 750 mg and carbamazepine 600 mg (to control epilepsy), oxiconazole (as a cream, to control facial dermatitis), risperidone 2 mg, clonazepam 2 mg, and clomipramine 150 mg.

In order to prevent his teeth from reaching the tongue and perhaps injuring it, a splint was constructed so as to involve the upper anterior teeth, keeping tooth spacing and allowing involuntary jaw movements. Since the patient now could not bite his tongue, he started to insert the lower lip between tooth arches to bite it, developing a new area of mutilation (figure 2). Thus, this appliance was disposed of, and another splint was built with the goal of preventing the patient from further hurting himself. This new appliance covered the upper posterior teeth, leaving some space between the anterior teeth, and thus preventing the patient from biting both the tongue and the lower lip (figure 3). This splint required some adjustments in order to allow contact between the molar teeth only, since the patient forced his lower lip bucally, placing it between his canine and premolar teeth.

The main symptom presented by the patient was an obsessive-compulsive behavior manifested as the biting of his tongue or lower lip. In spite of the difficulty to stop biting himself, the patient agreed to use the splint and began a new routine. He started placing and removing the splint several times instead of leaving it in place for as long as possible. He received liquid and mashed foods, a form of nourishment that allowed him to keep the splint in his mouth. He then only removed the splint to brush his teeth, during which time he would bite himself again if he did not use a bit of bandage, as before.
At no time did the patient complain of pain or discomfort either in the temporomandibular joints or in the injured areas. Since eccentric bruxism persisted, the acrylic splint gradually wore down, reducing its overdesigned thickness (figure 4). In one of the visits, when the splint was adjusted the patient mentioned fear of losing his entire tongue and that he was therefore wearing the appliance without interruption. During hospitalization, the patient became more responsive and his involuntary jaw movements subsided. This change was the result of an adjustment in the daily dose of risperidone to 9 mg. The diagnosis of schizoid personality disorder made prior to his hospital admission was then re-evaluated as simple schizophrenia.

At the beginning of treatment, the patient experienced great difficulty keeping his mouth open as was required to carry out the steps of splint construction. He could not manage to keep his jaw still for as little as 15 seconds. He currently

Figure 1. Tongue injured by biting.

Figure 2. Lower lip injured by biting.

Figure 3. Acrylic splint equipped with a support for molar teeth used to prevent injuries to lower lip and tongue.

Figure 4. Acrylic splint worn off due to bruxism after being used for 45 days.

masters all jaw movements. When the patient was discharged from hospital, the tongue and lip lesions were thoroughly healed (figures 5 and 6). Currently, he is still examined on a monthly basis by the stomatology team of HCPA for constant vigilance for use of the splint and for prompt intervention in case self-mutilation recurs. He has psychiatric follow-up with the schizophrenia service in the same hospital and is still treated with the same drug regimen prescribed at the time of hospital admission.

In the present case, it was possible to avoid extracting all teeth. Patient compliance to the treatment proposed allowed a more conservative treatment approach.

Discussion

The specialized literature does not present a case study of self-mutilation in a patient with schizoid personality disorder. The investigation of the clinical manifestations of psychiatric disorders in this patient promoted a reassignment of the initial diagnosis as simple schizophrenia, a disease that may include a picture of self-inflicted lesions.

Different intra-buccal appliances have been described to prevent tongue and lip injuries in patients with brain lesions. Kiat-Ammauay et al[7] have described a splint that covered the occlusal aspect of upper and lower teeth to prevent tongue and lip biting in a comatose patient. In the present case report, this type of appliance was not the best approach, since the patient was in a state of consciousness and presented involuntary jaw movements.

Self-mutilation of lips and tongue and the use of protective splints have also been reported in patients with Lesh-Nyhan syndrome.[8] All treatment attempts described were aimed at healing lesions and preserving teeth. In these patients, the presence of neurological damage is an obstacle to patient compliance. In our case, compliance was essential to meet the two aims of treatment: to heal lesions and preserve the patient's teeth.

The use of botulinum toxin in the treatment to self-mutilation involving lips of patients with Lesh-Nyvan was described by Gutierrez et al.[9] The periodically-repeated injection of the

Figure 5. Tongue completely healed, but presenting tissue loss, leading to speech impairment.

Figure 6. Lower lip completely healed and with minimal esthetic compromise.

toxin into the peribuccal muscles prevented the insertion of patients' lips in the buccal cavity and thus prevented new lesions. In our case, this could have been an alternative to preclude lip injuries, although it would not be beneficial in preventing tongue lesions. The injection of botulinum toxin in masseter muscles would require considerably high doses, not to mention the risk of affecting the pharyngeal muscles, which in turn could cause dysphagia.

The construction of splints is defined by several variables such as the clinical picture, for instance, which demonstrates the need for improvisation and adaptation. The myorelaxant splint used to control bruxism is the most elementary form of this appliance. Based on this initial reference splint, changes may be made as required to meet the aim of preventing self-inflicted injuries. The main parameters adopted to circumvent the construction of a latrogenic splint include the signs and symptoms in the temporomandibular joints and masticatory muscles.

In the present case, the patient was conscious and able to move around and converse. This condition would have favored the diagnosis of articular or muscular damage and thus afford the prompt treatment of these conditions. Yet, the patient did not exhibit, at any moment during the treatment, any symptoms of pain or other signs of articular lesions or injuries to the masticatory muscles. In spite of his autonomy to remove the splint whenever he so desired, he complied with the treatment as proposed.

Reports of schizophrenic patients who presented episodes of self-mutilation associated with nihilist hallucinations have been published.[10] In the present case, such hallucinations were not detected and the correct diagnosis was not immediately reached. The onset of epileptic seizures concomitant with the observation of symptoms of schizophrenia may have led to this delay in obtaining an accurate diagnosis.

Yet another approach that may prevent the self-mutilation of tongue and lips is the maxillomandibular fixation. In the present case maxillomandibular fixation was ruled out due to three reasons: (a) the severe wear of teeth, mainly in upper front teeth (which would make it more difficult to retain Erich arches), (b) the fact that the patient suffered from epilepsy, which could lead to aspiration of vomit before the maxillomandibular fixation could be unlocked in the occurrence of a seizure, and (c) the suspension of all mandibular movements would worsen the state of anxiety of the patient.

Conclusion

In the present case report we emphasize the importance of a transdiciplinary approach in treating self-mutilation in psychiatric patients. The interaction between the two treatment teams afforded improvement of the patient's condition in terms of the psychiatric drug therapy. The approach allowed adopting a more conservative therapy, which in turn made it unnecessary to extract the patient's teeth and still minimized mutilation.

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Author Affiliations

Maria Cristina Munerato, PhD;*
Sabrina Pozatti Moure, MSc Buccal Pathology†;
Vivian Machado, Resident Doctor‡;
Fernando Grilo Gomes, MSc Psychiatry‡

**Clinical Stomatology, Pontifical Catholic University of Rio Grande do Sul, Brazil*
†Buccal Pathology, Federal University of Rio Grande do Sul, Brazil
‡Psychiatry, Hospital de Clínicas de Porto Alegre (HCPA), Federal University of Rio Grande do Sul, Brazil